

Patent Claims

1 1. A dental implant
2 an anchoring head (2) for a structural element (15)
3 and
4 a screw element (3) with a thread core (8) and a
5 self-cutting outer thread (9),
6 characterized in that
7 the thread core (8) and the outer thread (9) have
8 three segments following one another in succession from crestal to
9 apical, namely
10 a crestal segment (10) adjoining the anchoring
11 head (2) with a constant outer diameter (D_9) of the outer thread
12 (9) and a thread core (8) conically tapering in the apical
13 direction,
14
15 a middle segment (12) with a substantial outer
16 diameter (D_{11}) of the thread core (8), and a tip segment (13) with
17 an outer thread (9) of an outer diameter (D_{13}) tapering in the
18 apical direction and a conically tapering diameter (D_{14}) of the
19 thread core (8).

1 2. The dental implant according to claim 1 or 2 [sic],
2 characterized in that the outer thread (9) is formed as a double
3 thread.

1 3. The dental implant according to claim 1 or 2,
2 characterized in that the ratio of the axial lengths (L_{10} , L_{12} , L_{13})
3 of the crestal segment (10) or the tip segment (13) on the one hand
4 to the middle segment (12) on the other hand lies between 1:1 and
5 1:2.

1 4. The dental implant according to one of the preceding
2 claims, characterized in that the ratio of the thread outer
3 diameter (D_9 ; D_{13}) in the crestal segment and the middle segment to
4 that of the apical end of the tip segment (13) lies at about 4:3.5.

1 5. The dental implant according to one of the preceding
2 claims characterized in that the anchoring head (6) has an internal
3 hexagonal rounded surface toothed socket (5) adjacent a blind
4 threaded bore (6) close to the apical side.

1 6. A set of dental implants, especially in accordance
2 with one of the preceding claims, characterized in that the crestal
3 anchoring surface (4) of the anchoring head (2) has at least two of
4 the dental implants (1, 1', 1'') of an outer diameter different from
5 the thread outer diameter (D_s , D_N , D_B) and different from a normal
6 outer diameter (D_N).

1 7. The dental implant set according to claim 6
2 characterized by

3 a normal thread implant (1) with a rigorously
4 cylindrical outer shape of the anchoring head (2) whose normal
5 outer diameter (D_N) corresponds to the normal thread outer diameter
6 (D_g) in the crestal segment (10), as well as

7 at least one small thread implant (1') with cylindrical
8 base outer configuration of the anchoring heads (2) and in which
9 the crestal edge of the anchoring heads (2) there is a
10 circumferential widening which has the normal outer diameter (D_N),
11 and/or

12 at least one wide thread implant (1'') with a cylindrical
13 base outer shape of the anchoring head (2) and in which at the
14 crestal edge of the anchoring head (2) a circumferential bevel (18)
15 is provided which bounds the crestal edge (19) of the normal outer
16 diameter (D_N).

1 8. A final drill for creating a final bore for a dental
2 implant according to one of claims 1 to 5, characterized in that
3 the final drill (21) has a conical cutting contour with the conical
4 pattern matched to the conical angle of the thread cores (8) and
5 with an outer diameter (D_{PB}) which corresponds to the outer diameter
6 (D_{11} , D_{14}) of the thread cores (8).

1 9. A final drill according to claim 8 characterized in
2 that the drill has multiple cutters, preferably three cutters,
3 whereby the cutters extend from the tip (23) over the area (24) of
4 the drill (21) up to a depth stop (25) on the shank (26).